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ABSTRACT

This investigation examined the dimensional sources and perceptions of occupational stress experienced by department chairs in institutions of higher education, and the influence of professional independent variables associated with these stressors. Surveys were mailed to 800 randomly selected department chairs at 100 institutions (523 surveys were returned representing a 66 percent rate of return). The Department Chair Stress Inventory (DSCI), consisting of 41 questions, identified five stress factors in the following rank order by stress factor mean: (1) faculty role stress; (2) perceived expectations stress; (3) administrative task stress; (4) role ambiguity stress; and (5) administrative relationship stress. Among the findings, it was determined that chairs who have high role ambiguity also experience high stress regarding their academic career, and that chairs who have high role conflict can be characterized as significantly more stressed in every stress factor than those chairs with medium or low perceived role conflict. The finding that relief from the occupational stress experienced by chairs is highly correlated with reduced conditions of role conflict and role ambiguity is viewed as the most significant finding of the study. An appendix contains the rank order of DCSI items. Contains 28 references. (GLR)

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STRESS FACTORS, ROLE CONFLICT, AND ROLE AMBIGUITY FOR ACADEMIC DEPARTMENT CHAIRS:

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STRESS FACTORS, ROLE CONFLICT AND ROLE AMBIGUITY FOR ACADEMIC DEPARTMENT CHAIRS: A NATIONAL STUDY

Introduction

The job of academic department chair provides a fertile area for research for a variety of reasons. The university academic department chair occupies a crucial yet somewhat unique managerial position. The Roman god *Janus* was depicted as a gatekeeper who had two faces that looked in two directions at the same time. Chairs are asked to fill a *Janus* position, functioning as the *gatekeeper* between the administration and the academic corps of the institution.

Chairs are considered faculty members, especially by their faculty peers in the department and more importantly by the chairs themselves (Lee, 1985). Chairs often try to continue to keep current in their academic discipline by maintaining at least part of their research/publication agenda and/or previous instructional load. Keeping current with research and instruction is an understandable practice. After an average of just over six years of service as a chair, instead of moving to other administrative positions, the majority of chairs return to their faculty positions (Carroll, 1990). Other scholars have cautioned about chairs losing touch with their disciplines stating "if he [*sic*] lingers as chairman for more than a few years, he [*sic*] may be beyond the point of no return" (Dressel, Johnson & Marcus, 1970, p. 13).

The second role chairs must perform is that of an administrator. Administrative errors chairs make can be difficult to undo elsewhere, and things left undone may be impossible to correct later. It is also the department chairperson to whom other institutional administrators look for maintenance of the integrity of the academic mission of the institution (Bennett & Figuli, 1990). In

the academy, the chair functions as a conduit for information and policy between the administration and the department faculty (Lee, 1985). In addition to providing the administrative link between the central administration and the department, chairs are expected to provide leadership to the faculty of the department.

Thus chairs, who are trained as scholars, are asked to perform administrative and leadership tasks for their academic peers, professionals who are prone to solitary, independent behavior (Gmelch & Seedorf, 1989). At the same time, chairs feel compelled to continue their personal scholarly pursuits. Scholars have suggested the duality of the chair role subjects those in the position to role conflict and role ambiguity (Bennett & Figuli, 1990; Pearlin, 1983; Singleton, 1987; Warren, 1990)

Role conflict stems from the nature of the *Janus* position, for no one can truly attend to two divergent roles simultaneously. Instead, tasks compete for the chair's attention. Fighting the dean and other administrators for department resources, confronting feuding faculty members, listening to student concerns, completing timebound paperwork, and preparing manuscripts for publication are examples of typical department chair tasks which can cause role conflict. Pearlin suggested trying to satisfy difficult role demands and tasks, settling interpersonal conflicts between people within a particular group and settling interpersonal conflict with people outside of the group are ". . . conditions that by themselves and in conjunction with select values and aspirations are capable of producing frustration, confusion, and threat. . . " (1983, p. 19).

Role ambiguity is associated with being uncertain as to what tasks should be done, how competing tasks should be prioritized, and how best to perform needed tasks. Most of the faculty members who hold the chair position have not had relevant professional training, mentoring or socialization to prepare them for

their administrative duties (Seedorf, 1990). French and Caplan (1973) suggest role ambiguity (1) produces psychological strain and dissatisfaction, (2) leads to underutilization of human resources, and (3) leads to feelings of futility about how to cope with the organizational environment. The literature suggests those job situations which amplify job ambiguity and role conflict should be associated with high perceived stress (Cooper & Marshal, 1978).

Theoretical Perspective

Three seminal works on occupational stress theory hold in common the importance of identifying the perceived sources of stress present in the environment (Caplan, Cobb, French, Van Harrison & Pinneau, 1980; French & Caplan, 1973; McGrath, 1970). The stress research paradigm suggested by McGrath (1970) has guided much of the investigation of stress by social scientists over the last two decades. McGrath identified a four-stage stress cycle:

> The stress problem involves a series of at least four classes of events, or panels of factors, or stages. . .The first of these takes place in the environment--the physical-social system in which the focal organism. . .is embedded. This class of events can be called *demand,* (or. . ."stressor,". . .), Second, there is the reception . . .of that "objective" demand by the focal organism. . .This class of events can be labeled *subjective demand.* . . Third, there is the focal organism's *response(s)* to the subjective demand--at physiological, psychological, behavioral, and social-interactive levels. Fourth, there are the *consequences* of response, both for the focal organism and for the larger system or environment in which it is embedded. (1970, p. 15)

In addition, McGrath theorized the sources of stress identified in the first stage of the stress cycle occurred within certain dimensions, or stress factors

(1976). McGrath's four-stage stress model was later refined and described as a stress cycle for managers (Gmelch, 1987).

Some scholars have developed and used stress instruments from a common source instrument to examine stress (Gmelch, Lovrich & Wilke, 1984; Gmelch & Swent, 1984; Koch, Tung, Gmelch & Swent, 1982; Perlberg & Keinan, 1986; Rasch, Hutchison & Tollefson, 1986). These studies have examined various positions held by professional educators and have identified stress factors similar to the dimensions of stress first theorized by McGrath (1976). In these and other studies, certain personal and professional independent variables like academic discipline, years of professional experience, age, gender, and family status have been examined in relation to occupational stress. This investigation is concerned with examining the dimensional sources and perceptions of occupational stress (stress cycle stages 1 and 2) experienced by department chairs, and the influence of professional independent variables associated with these stressors.

Purpose and Significance

There is a twofold purpose for this study. First, McGrath (1970) called for the ongoing development of methods for investigating stress. "With such methods and measures, then successive studies can be more comparable, and thus can potentially contribute to a truly cumulative body of knowledge about human stress" (p. 351). Studies of stress experienced by educators have been conducted using a consistent methodology which has evolved from the Administrator Stress Index (ASI) developed by Gmelch and Swent (1984). The current study builds upon the Department Chair Stress Inventory (DCSI) introduced by Gmelch and Burns (1991). The second purpose for the study is to understand more about the department chair position, and those who fill it. Little research has been done to date to identify specific stressors experienced by department chairs, and the

characteristics of chairs who experience the most stress. The study was concerned with describing the stressors identified in a national sample of department chairs from institutions classified as Research I and II Doctoral granting colleges and universities (Carnegie Commission on Higher Education, 1987).

Research Questions

Two research questions guided the study: 1. What, if any, stress factors emerge for department chairs? 2. Is there an association of chair role conflict and role ambiguity, and chair stress factors?

These research questions were explored using the *1991 National Survey of Department Chairs in Higher Education,* developed at the Center for the Study of the Department Chair at Washington State University. The Chair Stress Index (CSI) and the Role Conflict and Ambiguity Questionnaire (Rizzo, House & Lirtzman, 1970) were instruments included within the larger survey.

Methodology

Instrument Development

Gmelch and Burns (1991) developed The Department Chair Stress Index (DCSI) which was designed to identify the stress factors originating from *both* the administrative and the faculty roles of the chair position. While their study did examine the position in a broader role context than the investigations of previous researchers, they suggested the need for improvements to the research instrument used in their study.

Beginning with the Administrative Stress Index (ASI) developed by Gmelch and Swent (1984), researchers have modified that instrument and used it to assess occupational stress for various specific occupational groups including faculty in

higher education (Gmelch, Wilke and Loverich, 1984; Perlberg and Kienan, 1986) using the Faculty Stress Index (FSI), and higher education administrators (Rasch et al., 1986) using the University Administrative Concerns Questionnaire (UACQ). The development of the instrument for this study is a logical iteration of previous instrument development. The CSI consists of 41 questions which were taken from the ASI, FSI and UACQ. Each of the questions on the three instruments was compared and content analyzed. In some cases questions were simply eliminated because there was no relevance to the chair position. Several questions were reworded for purposes of clarity and consistency, and to make specific reference to components of the chair role. The completed questionnaire was submitted to a panel of chairs and stress experts who confirmed the construct validity of the instrument. A pilot test of the instrument resulted in the further rewording of one item.

Sample

A sample of 100 institutions was randomly selected from the universe of over 230 Research and Doctorate granting I and II institutions in the United States, as classified by the Carnegie Commission on Higher Education (1987). Biglan (1973) has suggested a paradigm for various investigations of higher education concerned with differences which might emerge based on academic discipline. Biglan stratifies disciplines into eight cells depending on their life verses nonlife orientations, applied verses pure nature of the discipline and finally "hard" or definite verses "soft" or indefinite research paradigm employed in the discipline. For each institution, eight department chairs were randomly selected from a list of academic disciplines associated with each Biglan cell. Thus, 800 department chairs from institutions throughout the United States were selected for the study.

Surveys were mailed to each department chair. The survey packet included

a cover letter and a business reply envelope. The major aspects of the Dillman (1978) *Total Design Method* were used in the design and distribution of the survey. After two mailings, five surveys were undeliverable, and 523 usable surveys were returned, representing a 66% usable survey return rate.

Data Analysis Procedures

Descriptive data were analyzed using frequency distributions and, on some variables, means and standard deviations are reported. These data help to describe the general demographic characteristics of the sample. Appendix 1 contains a rank order of CSI items by raw mean scores. Principle component analysis with varimax rotations were used to determine interrelations among items. Strong associations were analyzed and labeled as stress factors.

An ANOVA was conducted for each emergent stress factor and for the various Biglan discipline cells as well as the other independent variables which were subdivided into groups. Tukey's HSD was used for post hoc comparison of significant F-ratios.

Factor Analysis

Principal components factor analysis with varimax rotation was performed on the CSI items to determine the associations among questionnaire items. Five factors emerged. Although the ideal situation is where questionnaire items load perfectly on only one factor (i. e. factor loadings of 1.0 or -1.0), and all factors combined explain 100% of the total variance, this is never the case in actual practice. It is not unusual for some items to load on more than one factor as the mathematical processes for determining factors establishes independent correlations for each combination of items. Items which load on more than one factor must be considered in the definition of each factor (1982). Table 1 lists

factors, Eigenvalues, and percent of variance for each factor.

Principal component factor analysis using a varimax rotation procedure was performed, resulting in the emergence of five stress factors. After rotation, Factor 1 accounted for 7.286% of total variance, factor 2 accounted for an additional 11.496% of the total variance, factor 3 accounted for 7.429% of variance, factor 4 accounted for 6.355% of variance and factor 5, accounted for 12.821% of total variance. Combined, the five factors accounted for 45.38% of total variance.

Table 1

Eigenvalues and Percent of Explained Variance for Stress Factors

Factor	Eigenvalue	% of Variance
1	11.402	7.286
2	2.497	11.496
3	1.942	7.429
4	1.678	6.355
5	1.511	12.821

Factor 1 relates specifically to the academic role of chairs, whereas the other four factors are predominantly made up of items which pertain more to the administrative role of chairs. Items with factor loadings below .395 were not loaded into a factor. Of the 41 items included in the CSI, three did not load with any factor, and six loaded on two factors.

Factor 1, Faculty Role Stress

Factor 1 is labeled *Faculty Role Stress,* and is made up of six CSI items. Table 2 describes the items which make up the *Faculty Role Stress* factor. The items in this factor describe the tasks, time commitments, recognition and beliefs chairs have about their responsibilities as faculty members. Five of the six items relate directly to the chair's role as a scholar engaged in research and publication

activities. The highest loading (.672) item in this factor was *Preparing manuscripts for publication.* It is interesting to note *Having inadequate time for teaching preparation,* did not load into this or any other factor. These data suggest the courses chairs may teach require little disruption, in terms of time commitments, or conflict with other tasks associated with their positions. Continuing as an active researcher/scholar appears to be much more disruptive and stressful for chairs.

Table 2

Factor 1: Faculty Role Stress

Item	Load
Preparing manuscripts for publication	.672
Securing financial support for my research	.627
Believing my academic career progress is not what it should be	.588
Receiving insufficient recognition for research performance	.551
Having insufficient time to stay current in my academic field	.551
Receiving insufficient recognition for performing administrative responsibilities	.426*

* Loaded on more than one factor

Factor 2, Administrative Relationship Stress

Factor 2 was labeled *Administrative Relationship Stress.* Table 3 describes the items which make up the *Administrative Relationship Stress* factor. The factor is comprised of items which reflect the chair's responsibility as the primary representative of the department to the administration as well as a conduit of information from the administration to the department. The highest loading (.676) item in this factor was *Not knowing how my dean/supervisor evaluates my performance.* Six of the items refer directly to the chair's relationship with the dean and other superior administrators. Representing the department to

administrators, influencing them on behalf of the department, and gaining sufficient authority from the administration to carry out the responsibilities of the department all represent activities which are somewhat dependent on the chair's administrative authority. Complying with rules and regulations, feeling others don't understand the chair's goals and expectations, receiving insufficient recognition for administrative responsibilities and pressure for better job performance than is reasonable can be associated with administrative communication issues.

Table 3

Factor 2: Administrative Relationship Stress

Item	Load
Not knowing how my dean/supervisor evaluates my performance	.676
Trying to influence the actions and decisions of my dean/supervisor	.669
Receiving insufficient recognition for performing administrative responsibilities	.616*
Having insufficient authority to perform departmental responsibilities	.608
Feeling I will not be able to satisfy the conflicting demands of those in positions of authority over me	.595
Resolving differences with my dean/supervisor	.593
Feeling pressure for better job performance above what I feel is reasonable	.491*
Believing my administrative career progress is not what it should be	.480
Feeling required paperwork is not utilized	.461*
Feeling others don't understand my goals and expectations	.445*
Complying with college and university rules and regulations	.440*
Receiving inadequate salary	.431

* Loaded on more than one factor

Factor 3, Role Ambiguity Stress

Factor 3 was labeled *Role Ambiguity Stress* as it was comprised of items which reflect the relative uncertainty chairs have about the tasks they are to perform, the adequacy of the administrative training they have received, and concerns about the authority they have been given. Table 4 describes the items

which make up the *Role Ambiguity Stress* factor. Eight items make up this stress factor. Three items loaded on other factors as well. *Feeling others don't understand my goals and expectations,* and *Feeling pressure for better job performance above what I feel is reasonable* also loaded in Administrative Relationship stress, while *Having to make decisions that affect the lives of faculty, staff and students* also loaded on factor 5 which is associated with administrative tasks. The highest loading (.625) item in this factor was *Feeling I am not adequately trained to handle my job.*

Table 4

Factor 3: Role Ambiguity Stress

Item	Load
Feeling I am not adequately trained to handle my job	.625
Feeling I have too much responsibility delegated to me by my dean/supervisor	.592
Feeling not enough is expected of me by my dean/supervisor	.544
Believing I can't get all of the information I need to carry out my job properly	.505
Having to make decisions that affect the lives of faculty, staff and students	.494*
Feeling others don't understand my goals and expectations	.445*
Feeling pressure for better job performance above what I feel is reasonable	.405*
Trying to satisfy the concerns of constituent groups (alumni, community etc.)	.396

* Loaded on more than one factor

Four of the items are associated with chairs' feelings about the amount of training, level of responsibility, and the amount of information they have about their role as chairs. These uncertainties about the position and their responsibilities are typical descriptions of job ambiguity (French & Caplan, 1973; Kahn, Wolfe, Quinn, Snoek & Rosenthal, 1964; Pearlin, 1983). The items which loaded on other factors are associated with specific kinds of tasks about which chairs may feel uncertain, for which they may have had little training, and also can contribute to job ambiguity. Finally, *Trying to satisfy the concerns of*

constituent groups (alumni, community, etc.) can also contribute to job ambiguity because such groups often have conflicting demands and expectations on the chair.

Factor 4, Perceived Expectations

Factor 4 was labeled *Perceived Expectations Stress* as it was comprised of items which reflect the commitments and obligations chairs perceive as necessary to fulfill the expectations of their roles. Table 5 describes the items which make up the *Perceived Expectations Stress* factor. The obligations represented by these items also include additional social responsibilities, being present as the departmental representative at meetings and functions beyond normal working hours. These professional expectations coupled with high self-expectations and a desire to continue to make a contribution to their profession represent a combination of pressures chairs feel from their perceptions about the requirements and obligations of their position. The highest loading (.660) item in this factor was *Having to travel to fulfill job expectations.* The remaining *Perceived Expectations Stress* items suggest elements of the role which the chair must do, often in lieu of performing other (possibly more important and/or more desirable) tasks.

Table 5

Factor 4: Perceived Expectations Stress

Item	Load
Having to travel to fulfill job expectations	.660
Participating in work-related activities outside regular working hours which conflict with personal activities	.597
Meeting social obligations (clubs, parties, volunteer work) expected of chairs	.593
Making presentations at professional meetings	.533
Imposing excessively high self-expectations	.395

The tasks associated with the stress factor are not necessarily difficult, nor do they represent a role conflict situation. Instead, these tasks are simply tasks the chair *must* perform. The chair is held captive by his or her high self-expectations to perform them. Perlin described these kinds of tasks, "The essential feature of role captivity is not that the conditions of the role are difficult or conflictful; it is that the role is unwanted, regardless of the conditions it presents. . . The essential character of role captivity, whenever it occurs, is that it entails an inescapable obligation to be and do one thing at the very time the individual wants to be and do something different. This conflict generates stress" (1983, p. 19).

Factor 5, Administrative Task Stress

Factor 5 is labeled *Administrative Task Stress* as it is made up of 14 items reported in Table 6, which relate to the administrative tasks of chairs. These tasks can be grouped into 4 subdivisions: Time consuming/tedious tasks; supervisory/conflict potential tasks; tasks associated with securing resources; and personal pressure associated with administrative tasks. The highest loading (.681) item in this factor was *Meeting report and other paperwork deadlines.*

The time consuming/tedious tasks consist largely of tasks associated with completing paperwork, attending meetings, and otherwise dealing with the bureaucratic processes of institutions. The supervisory/conflict potential tasks were associated with evaluation, decision-making which affected the lives of people, handling student conflicts, and supervising and coordinating the tasks of many people.

Evaluation of faculty peers can be especially vexing for chairs. Boice and Myers (1986) called the process awkward for chairs. Regarding faculty evaluation Bennett reported, "As a result of this responsibility, chairs often report feeling real personal conflict between supporting peer colleagues and assessing or

evaluating their performance and accomplishments. The one presupposes collegiality while the other risks disruption of collegiality" (Bennett, 1990, p. 74).

Table 6

Factor 5: Administrative Task Stress

Item	Load
Meeting report and other paperwork deadlines	.681
Preparing budgets and allocating resources	.666
Trying to gain financial support for department programs	.598
Writing letters and memos, responding to other paperwork	.595
Evaluating faculty and staff performance	.575
Having to make decisions that affect the lives of faculty, staff and students	.560*
Feeling I have too heavy a work load	.531
Supervising and coordinating the tasks of many people	.519
Complying with college and university rules and regulations	.497*
Attending meetings which take up too much time	.491
Handling student concerns and conflicts	.438
Feeling required paperwork is not utilized	.422*
Seeking compatibility among institutional, departmental, and personal goals	.409

* Loaded on more than one factor

Items Which Did Not Load onto Stress Factors

Three items did not load onto factors. *Adapting to technological changes (e.g. FAX, telephone systems, computers),* was ranked 35th by all chairs and was not ranked in the top 10 for any of the discipline groups. *Having a non-conducive work environment (e.g. crowded, noisy, inadequate facilities),* is probably an institutionally specific item. None of the discipline groups identified this item as a top stressor and it was ranked 29th by all chairs. *Having inadequate time for teaching preparation,* was ranked in the top 10 by only the Soft-Pure-Nonlife Biglan discipline group. Most chairs are much more inclined to identify pressures associated with research and publication as more important than

preparation for teaching.

Stress Factor Rankings

Weighted means for each item which made up the individual stress factors were calculated multiplying the factor coefficient scores for each item by the overall mean of the item. The stress factor average was obtained by determining the average of all weighted means for the items in each stress factor. Table 8 lists the stress factors in rank order by stress factor mean.

Table 8

Ranking of Stress Factors by Stress Factor Means

Rank	Factor #	Factor Name	Stress Factor Mean
1	1	Faculty Role Stress	.740
2	4	Perceived Expectations Stress	.595
3	5	Administrative Task Stress	.383
4	3	Role Ambiguity Stress	.353
5	2	Administrative Relationship Stress	.335

In summary, the CSI identifies sources of stress within five dimensions. These stress factors reflect the dual faculty and administrative roles assumed by department chairs. These data suggest chairs are neither wholly faculty members nor wholly administrators. Their functions cross the boundaries of two professional positions, and examination of the position of chair must take this uniqueness into consideration.

Role Ambiguity and Stress Factors

The *1991 National Survey of Department Chairs in Higher Education* contained an instrument designed to measure both role ambiguity and role conflict (Rizzo, House & Lirtzman, 1970). The role ambiguity scores were

calculated on a seven point Likert Scale. Three categories of role ambiguity, high medium and low, were established. There were 81 (15.6%) chairs in the high ambiguity group, 250 (48.26%) in the medium ambiguity group, and 187 (36.1%) of chairs in the low ambiguity group. Mean scores represented in the middle three Likert options separated the high ambiguity group from the low ambiguity group. Stress factor means were calculated for the chairs in each of the three role ambiguity groups. Analysis of variance (ANOVA) was determined for the three groups. Tukey's HSD was then calculated to determine significance and source of differences in mean scores. Table 9 lists the stress factor means of high, medium and low role ambiguity chairs. The *Between Groups Significance* columns show the results of Tukey's HSD calculations.

A mean of .819 was calculated for *high role ambiguity* chairs in the *Faculty Role Stress* factor. The mean for *low role ambiguity* chairs in the same stress factor was .681, significantly lower than the *high role ambiguity* group at the .0001 level. In each successive group from *low to high role ambiguity,* chairs reported increased stress. Differences in all stress score means were all statistically significant.

For the *Administrative Relationship Stress* factor, a mean of .389 was calculated for the *high role ambiguity* group. The mean for *low role ambiguity* chairs in the same stress factor was .289, significantly lower than the *high role ambiguity* group at the .0001 level. In each successive group from *low to high role ambiguity,* chairs reported increased stress. Differences in all stress score means were all statistically significant.

A stress mean of .404 was calculated for *high role ambiguity* chairs in the *Role Ambiguity Stress* factor. The mean for *low role ambiguity* chairs in the same stress factor was .306, significantly lower than the *high role ambiguity* group at the .0001 level. In each successive group from *low to high role*

Table 9
Stress Factors and Role Ambiguity Means

	Faculty Role			Administrative Relationship			Role Ambiguity			Perceived Expectations			Administrative Task		
Role Ambiguity Group		Between Groups Significance			Between Groups Significance			Between Groups Significance			Between Groups Significance			Between Groups Significance	
n	Mean	High	Med	Mean	High	Med	Mean	High	Med	Mean	High	Med	Mean	High	Med
High 81	.819		*	.389		**	.404		*	.611			.410		
Med 250	.748	*		.347	**		.368	*	***	.629			.395		
Low 187	.681	***	**	.289	***	***	.306	***		.540	*	***	.345	***	***

* Significant at the .05 Level

** Significant at the .005 Level

*** Significant at the .0001 Level

ambiguity, chairs reported increased stress. Differences in all stress score means were all statistically significant.

For the *Perceived Expectations Stress* factor, a mean of .629 was calculated for the *medium role ambiguity* group. The mean for *low role ambiguity* chairs in the same stress factor was .540, significantly lower than the *medium role ambiguity* group at the .0001 level. Differences in stress score means between the *medium role ambiguity* group and the other two groups were statistically significant.

A stress mean of .410 was calculated for *high role ambiguity* chairs in the *Administrative Task Stress* factor. The mean for *low role ambiguity* chairs in the same stress factor was .345, significantly lower than the *high role ambiguity* group at the .0001 level. In each successive group from *low to high role ambiguity,* chairs reported increased stress. Differences in stress score means between the *low role ambiguity* group and the other two groups were both statistically significant at the .0001 level.

In summary, chairs who have high role ambiguity experience high stress regarding their academic career, the obligations associated with the chair position, the administrative tasks they must perform, as well as the ambiguity related to many of their administrative tasks. They are much more concerned about administrative relationship activities than chairs who experience low role ambiguity.

Role Conflict and Stress Factors

The instrument used to determine role ambiguity also measured role conflict (Rizzo, et al., 1970). The role conflict scores were calculated on a seven point Likert Scale. Three categories of role conflict, high medium and low, were established. There were 139 (26.8%) chairs in the high role conflict group, 284 (58.8%) in the medium conflict group, and 95 (18.3%) in the low role conflict

group. Mean scores represented in the middle three Likert options separated the high role conflict group from the low role conflict group. Stress factor means were calculated for the chairs in each of the three role conflict groups. Analysis of variance (ANOVA) was determined for the three groups. Tukey's HSD was then calculated to determine significance and source of differences in mean scores. Table 10 lists the stress factor means of high, medium and low role conflict chairs. The *Between Groups Significance* columns show the results of Tukey's HSD calculations.

An mean of .789 was calculated for *high role conflict* chairs in the *Faculty Role Stress* factor. The mean for *low role conflict* chairs in the same stress factor was .598, significantly lower than the *high role conflict* group at the .0001 level. In each successive group from *low to high role conflict,* chairs reported increased stress. Differences in the *low role conflict* group stress score means and the other two groups were statistically significant at the .0001 level.

For the *Administrative Relationship Stress* factor, a mean of .394 was calculated for the *high role conflict* group. The mean for *low role conflict* chairs in the same stress factor was .238, significantly lower than the *high role conflict* group at the .0001 level. In each successive group from *low to high role conflict,* chairs reported increased stress. Differences in all stress score means were all statistically significant at the .0001 level.

A stress mean of .384 was calculated for *high role conflict* chairs in the *Role Ambiguity Stress* factor. The mean for *low role conflict* chairs in the same stress factor was .283, significantly lower than the *high role conflict* group at the .0001 level. In each successive group from *low to high role conflict,* chairs reported increased stress. Differences in the *low role conflict* group stress score means and the other two groups were statistically significant at the .0001 level.

For the *Perceived Expectations Stress* factor, a mean of .640 was calculated

Table 10

Stress Factors and Role Conflict Group Adjusted Stress Means

	Faculty Role			Administrative Relationship			Role Ambiguity			Perceived Expectations			Administrative Task		
Role Conflict Group		Between Groups Significance			Between Groups Significance			Between Groups Significance			Between Groups Significance			Between Groups Significance	
n	Mean	High	Med	Mean	High	Med	Mean	High	Med	Mean	High	Med	Mean	High	Med
High 139	.789			.394		***	.384			.640			.426		****
Med 284	.756			.334	***		.358			.606			.383	***	
Low 95	.598	***	***	.238	***	***	.283	***	***	.493	***	***	.300	***	***

* Significant at the .05 Level

** Significant at the .005 Level

*** Significant at the .0001 Level

for the *high role conflict* group. The mean for *low role conflict* chairs in the same stress factor was .493, significantly lower than the *high role conflict* group at the .0001 level. Differences in the *low role conflict* group stress score means and the other two groups were statistically significant at the .0001 level.

A stress mean of .426 was calculated for *high role conflict* chairs in the *Administrative Task Stress* factor. The mean for *low role conflict* chairs in the same stress factor was .300, significantly lower than the *high role conflict* group at the .0001 level. In each successive group from *low to high role conflict,* chairs reported increased stress. Differences in stress score means between all groups were statistically significant at the .0001 level.

In summary, chairs who have high role conflict can be characterized as significantly more stressed in every stress factor than chairs with medium or low perceived role conflict. In the *Administrative Relationship* and *Administrative Task Stress* factors, chairs who perceive moderate role conflict in their positions experience significantly more stress than *low role conflict* chairs.

These data for role conflict and role ambiguity show for nearly every stress factor, the higher the role conflict and role ambiguity a chair experiences, the more likely the chair is to experience significantly more stress. Kahn (1964) suggested three possible reasons why role conflict and role ambiguity are related. First, conflicting demands tend to also create uncertainty about what should be done. Second, if the role is ambiguous to the person in it, it is probably ambiguous for those who interact with the person in the role as well. Finally, Kahn stated "Some of the conditions cited as sources of ambiguity--organizational size and complexity, rapid change, differential objectives of subparts of the organization--are also sources of conflict" (1964, p. 89).

Implications

The basic theoretical construct of stress underlying this investigation is that stress is the result of the respondent's interpretation of stimuli and other events in their environment. Stress is determined by "One's anticipation of his or her inability to respond adequately (Stage III) to a perceived (Stage II) demand (Stage I), accompanied by the anticipation of negative consequences (Stage IV) due to an inadequate response" (Gmelch, 1987, p.2). The perceived sources of stress, (Stage I) can be associated with certain dimensions, or factors of stress first theorized by McGrath (1976) and subsequently refined by other investigations (Gmelch, et al., 1984; Gmelch & Swent, 1984; Koch, et al., 1982; Perlberg & Keinan, 1986; Rasch, et al., 1986).

Five stress factors for department chairs were determined in this study, *Faculty Role, Administrative Relationship, Role Ambiguity, Perceived Expectations, and Administrative Task.* The stress factors are related to the perceptions of the sources of stress which occur in the chair's environment, and they reflect the *Janus* nature of the position. Chairs must attend to and are concerned about their administrative *and* their faculty roles as chairs.

The simple identification of stress factors and their relationship to the stress cycle is insufficient for explaining the stress experienced by department chairs. In this investigation, within the same stress factors, high role conflict/ambiguity chairs experienced more stress than low conflict/ambiguity chairs.

Caplan, Cobb, French, Van Harrison and Pinneau (1980) suggest stress is based on the *interaction* of environmental and independent variables. The current study demonstrates stressors exist in the environment, and many of these stressors may be understood because of their association with certain specific stress dimensions or factors. The factors, however, are perceived differently

based on certain professional characteristics of chairs in particular chair positions. The intensity of role conflict and role ambiguity experienced by chairs serves to increase, or conversely, reduce the intensity of the stress perceptions.

High occupational stress is often associated with high role conflict and/or role ambiguity positions. This exploratory study illuminates that *not all chairs indicate their positions have high role ambiguity and/or high role conflict.* This finding suggests the position *does not have to be associated* with conditions of high ambiguity and conflict.

It may be possible to address the conditions under which role ambiguity and role conflict fester for department chairs, and take steps to alleviate those conditions. Role ambiguity has been defined in this study as ". . . the degree to which required information is available to a given organizational position. To the extent that such information is communicated clearly and consistently to a focal person, it will tend to induce in him an experience of certainty with respect to his role requirements and his place in the organization" (Kahn et al., 1964, p. 25). It is important for chairs and those who work with them to understand clearly the expectations of the chair position. Moreover, chairs need to be trained to perform effectively in this new role.

While chairs may have a good idea about what it will take to be an effective chair based on their intelligent, studied observation of the position, like any person who takes on a new position, they need some training. The high role ambiguity scores expressed by some chairs in this study suggest it is a mistake for central administrators, deans, faculty members, and the chairs themselves to assume election to the chair position certifies an individual's competence as an administrator. In addition, role senders, particularly deans, must be clear about their expectations of chairs, the authority and responsibility they delegate to chairs, and the support they offer chairs.

The support given by deans is also critical when considering the role conflict many chairs experience. In this study, role conflict was identified as ". . . the simultaneous occurrence of two (or more) sets of pressures such that compliance with one would make more difficult compliance with the other. In the extreme case, compliance with one set of pressures excludes completely the possibility of compliance with another set; the two sets of pressures are mutually contradictory" (Kahn, et al., 1964, p. 19). Chairs can experience role conflict from inter-role pressures resulting from the boundary spanning nature of their position, as well as conflict from the intra-role issues emanating from the *Janus* nature of the position.

Deans and department faculty members should especially recognize the chair's need to continue scholarly activity. Time and other resources should be allocated to the chair for personal research. In addition, deans and central administrators should curb their appetite for time consuming "administrivia" produced at the department level.

The most important implication from this investigation is the finding that *relief from the occupational stress experienced by chairs is highly correlated with reduced conditions of role conflict and role ambiguity.* Furthermore, though the position is disposed to ambiguity and conflict, these constructs are not indelible components. The current investigation identified 18.3% of chairs who indicated they experienced low role conflict in their positions, and 36.1% of chairs experienced low role ambiguity. In future investigations it may be possible to discover why these chairs experience low conflict and ambiguity, and translate that knowledge to programs of assistance and better conditions of employment for university department chairs.

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APPENDIX 1

RANK ORDER OF CSI ITEMS

Ranking of Stressors

Rank	Stress Questionnaire Item	Mean
1	Having insufficient time to stay current in my academic field	3.940
2	Trying to gain financial support for department programs	3.540
3	Evaluating faculty and staff performance	3.417
4	Attending meetings which take up too much time	3.335
5	Feeling I have too heavy a work load	3.260
6	Believing my academic career progress is not what it should be	3.252
7	Writing letters and memos, and responding to other paperwork	3.191
8	Imposing excessively high self-expectations	3.190
9	Preparing manuscripts for publication	3.115
10	Meeting report and other paperwork deadlines	3.109
11	Making decisions that affect the lives of faculty, staff and students	3.062
12	Preparing budgets and allocating resources	3.025
13	Seeking compatibility among inst., dept. and personal goals	2.953
14	Securing financial support for my research	2.899
15	Feeling required paperwork is not utilized	2.891
16	Having inadequate time for teaching preparation	2.880
17	Complying with college and university rules and regulations	2.822
18	Participating in work-related activities outside regular hours	2.780
19	Trying to influence the actions & decisions of my dean	2.733
20	Receiving insufficient recognition for performing administrative responsibilities	2.680
21	Handling student concerns and conflicts	2.664
22	Supervising and coordinating the tasks of many people	2.621
23	Receiving inadequate salary	2.596
24	Having insufficient authority to perform my departmental responsibilities	2.442
25	Resolving differences with my dean	2.331
26	Trying to satisfy the concerns of constituent groups (alumni, community etc.)	2.239
27	Meeting social obligations (clubs, parties, volunteer work) expected of chairs	2.218
28	Feeling others don't understand my goals and expectations	2.148
29	Having a non-conducive work environment (e.g. crowded, noisy, inadequate facilities)	2.120
30	Not knowing how my dean evaluates my performance	2.063
31	Receiving insufficient recognition for research performance	2.056
32	Feeling I will not be able to satisfy the conflicting demands of those in positions of authority over me	2.027
33	Believing I can't get all of the information I need to carry out my job properly	1.998
34	Making presentations at professional meetings	1.890
35	Adapting to technological changes (e.g. FAX, telephone systems, computers)	1.842
36	Having to travel to fulfill job expectations	1.793
37	Feeling I am not adequately trained to handle my job	1.729
38	Believing my administrative career progress is not what it should be	1.678
39	Feeling pressure for better job performance above what I feel is reasonable	1.646
40	Feeling I have too much responsibility delegated to me by my dean	1.556
41	Feeling not enough is expected of me by my dean	1.278